Title (en)

FIBER OPTIC REFRACTIVE INDEX SENSOR USING A METAL CLAD.

Title (de)

SENSOR FÜR DEN BRECHUNGSINDEX AUS OPTISCHEN FASERN UNTER VERWENDUNG EINER METALLBESCHICHTUNG.

Title (fr)

CAPTEUR D'INDICE DE REFRACTION A FIBRES OPTIQUES UTILISANT UN REVETEMENT METALLIQUE.

Publication

EP 0400061 B1 19941221 (EN)

Application

EP 89902845 A 19890124

Priority

- US 8900300 W 19890124
- US 15019788 A 19880129

Abstract (en)

[origin: WO8907279A1] A refractive index FOCS has a thin metal film clad (16) on a fiber optic core (12) so that transmission through the core (12) is strongly affected by the refractive index of a surrounding solvent. The clad (16) is made of platinum, or also of gold, rhodium or palladium. With a fluorescent tip (14), the changes in the fluorescent signal are a measure of the solvent refractive index. With a reflective tip (18), the changes in the reflected signal are measured. In a linear configuration, source and detector are placed at opposite ends of the fiber (22) and changes in the transmitted signal are measured as a function of solvent refractive index.

IPC 1-7

G01N 21/43; G02B 6/02

IPC 8 full level

G01N 21/55 (2006.01); **G01N 21/41** (2006.01); **G01N 21/43** (2006.01); **G02B 6/02** (2006.01)

CPC (source: EP KR US)

G01N 21/431 (2013.01 - EP US); **G02B 6/02** (2013.01 - KR); G01N 2021/432 (2013.01 - EP US)

Citation (examination)

IBM TECHNICAL DISCLOSURE BULLETIN. vol. 25, no. 10, March 1983, NEW YORK US pages 4976 - 4977; H.GUGGER: 'optical nondestructive method for dynamic monitoring of chemical reactions'

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

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DOCDB simple family (application)

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